REMARKS/ARGUMENTS

Claims 33-68 were previously pending in the application. Claims 33, 35-36, 38-40, 49, 51-52, 54-56, and 67 are amended; claim 68 is canceled; and new claim 69 is added herein. Assuming entry of this amendment, claims 33-69 are now pending in this application. The Applicant hereby requests further examination and reconsideration of the application in view of the foregoing amendments and these remarks.

Prior-Art Rejections

In pages 3-7 of the February 23, 2010, final Office Action, the Examiner rejected claims 33, 35, 37, 41-42, 45, 48-49, 51, 53, 57-58, 61, 64, and 67 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,853,681 to Lindoff ("Lindoff") in view of U.S. Pat. App. Pub. No. 2002/0075947 to Lai et al. ("Lai"), in further view of U.S. Pat. No. 7,499,397 to Monk et al. ("Monk"). In page 7, the Examiner rejected claims 34, 50, and 68 under 35 U.S.C. §103(a) as being unpatentable over Lindoff in view of Lai and Monk, in further view of U.S. Pat. App. Pub. No. 2003/0039242 to Moore, Jr. ("Moore"). In pages 7-8, the Examiner rejected claims 36, 52, 47, and 63 under 35 U.S.C. §103(a) as being unpatentable over Lindoff, in view of Lai and Monk, in further view of U.S. Pat. App. Pub. No. 2002/0131486 to Haartsen ("Haartsen"). In pages 8-10, the Examiner rejected claims 38, 43, 44, 54, 59, and 60 under 35 U.S.C. §103(a) as being unpatentable over Lindoff, in view of Lai and Monk, in further view of U.S. Pat. App. Pub. No. 2005/0186933 to Trans ("Trans"). In page 10, the Examiner rejected claims 39, 40, 55, and 56 under 35 U.S.C. §103(a) as being unpatentable over Lindoff, in view of Lai, Monk, and Trans, in further view of U.S. Pat. App. Pub. No. 2002/0016949 to Goslin et al. ("Goslin"). In pages 10-11, the Examiner rejected claims 46, 62, 65, and 66 under 35 U.S.C. §103(a) as being unpatentable over Lindoff, in view of Lai and Monk, in further view of U.S. Pat. No. 6,421,527 to DeMartin et al. ("DeMartin"). For the reasons outlined below, the Applicant submits that all of the currently pending claims are allowable over the cited references.

Finality of Office Action

The Applicant respectfully submits that the Office Action was improperly made final. In the previous office action of August 18, 2009, the Examiner rejected claim 34 as obvious over Lindoff in view of Haartsen. In the Amendment of November 12, 2009, the Applicant added

claim 68, which is equivalent to that previously pending and rejected claim 34, but in independent form. In the present Office Action, claim 68 was rejected as obvious over Lindoff in view of Lai, Monk, and Moore. In other words, the Applicant's arguments regarding the allowability of claim 68 overcame the Examiner's previous rejection, and, consequently, claim 68 was rejected under new grounds <u>not</u> necessitated by amendment by the Applicant. For this reason alone, as already noted in the November 12, 2009, Amendment, the present office action <u>cannot</u> properly be made final.

Additionally, in rejecting claim 47, the Examiner did not even nominally address the recited limitation that "the first auxiliary coding is received as a first set of pulses received substantially immediately before the first data packet." Since this limitation has never been addressed in view of the newly cited references, the Applicant submits that this provides further reasons for the impropriety of the finality of the Office Action. For the above reasons, the Applicant respectfully requests that the finality of the Office Action be withdrawn.

In a first Telephonic Interview with the Examiner, on April 12, 2010, the Applicant presented the above arguments regarding the propriety of the finality of the Office Action. In a second Telephonic Interview with the Examiner, on April 16, 2010, the Examiner stated that, after considering the Applicant's arguments, the Examiner and the Supervisory Examiner agreed that the finality of the Office Action was improper. As such, the Applicant submits that this Amendment should be entered.

Claims 33 and 49

Claims 33 and 49 have been amended to clarify various recited features. Claim 33 was amended to specify that each different identifier is for a corresponding network device of the communication network. This amendment is supported by, for example, the specification at page 11, lines 3-8. The term "training preamble" has been replaced by the term "training sequence" for better consistency with the specification. This amendment is supported by, for example, the specification at page 3, lines 9-18.

Claim 33 was further amended to clarify that the first auxiliary coding corresponds to <u>only</u> the first data packet and, consequently, not to other data packets. This amendment is supported by, for example, the specification at page 9, lines 4-6.

Claim 33 was additionally amended to add a comma before the conjunction "and" in a list of items. Note that this amendment was not made to overcome any prior-art references.

Claim 33 was also amended to specify that the receiver is further adapted to (i) receive a second data packet from a second transmitter, (ii) receive a corresponding second auxiliary coding that identifies a second identifier, (iii) recover a second set of one or more parameters from the database table based on the second identifier, and (iv) process at least a portion of the second data packet based on the second set of one or more parameters. This amendment is supported by, for example, previously pending claim 33 and Fig. 2. The Applicant submits that the cited references do not teach all the features of amended claim 33.

In rejecting previously pending claim 33, the Examiner asserted that a combination of Lindoff, Lai, and Monk would disclose all the features of that claim. The Applicant submits that the suggested combination of Lindoff, Lai, and Mock would not teach all the features of amended claim 33. The Applicant notes that, in rejecting an earlier version of claim 33, the Examiner asserted that a flag bit in Haartsen corresponds to the recited auxiliary coding, but that, in rejecting the most-recent version of claim 33, the Examiner newly asserted that it is the training sequence of Lindoff that corresponds to the recited auxiliary coding.

The Applicant submits that the proposed combination does not teach a receiver adapted to receive a first auxiliary coding corresponding to only the first data packet, wherein the first auxiliary coding and the first identifier are each different from the training sequence. The Examiner identified the training sequence of Lindoff as allegedly corresponding to the recited auxiliary coding. Assuming *arguendo*, that the asserted correspondence is proper, which the Applicant denies, Lindoff does <u>not</u> teach an auxiliary coding corresponding to <u>only</u> a first data packet. Lindoff teaches that a training sequence "is a predefined digital string which is typically sent along with data transmissions at regular time intervals" (column 1, lines 52-54). This does <u>not</u> teach a training sequence corresponding to only a first data packet. In page 4 of the Office Action, the Examiner admitted that Lindoff does <u>not</u> disclose a data packet comprising a training sequence. Furthermore, Lindoff <u>nowhere</u> teaches a training sequence that corresponds to a data packet. The Examiner asserted, however, that, since Lai discloses a packet preamble that may include a training sequence, combining Lindoff with Lai would produce a system wherein a first data packet comprises a training sequence which corresponds to a first auxiliary coding.

The Examiner asserted that, since (i) a preamble may contain information in addition to a training sequence and (ii) the training sequence of Lindoff allegedly corresponds to the recited auxiliary coding, the proposed combination teaches a first auxiliary coding that is different from

a training preamble. As noted above, claim 33 has been amended to recite that the first auxiliary coding is different from the _training sequence_. Assuming _arguendo_, again, that the training sequence of Lindoff and/or Lai corresponds to the recited auxiliary coding, which the Applicant denies, the proposed combination would teach a training sequence that is different from the training sequence. This would be a nonsensical and absurd result. Consequently, the premise must be wrong and, therefore, it cannot be said that the proposed combination of cited references would teach a network device comprising a receiver adapted to receive a first data packet comprising (i) a training sequence and (ii) a first auxiliary coding that is different from the training sequence.

Therefore, for the above reasons, it is submitted that amended claim 33 is allowable over the cited references. For similar reasons, it is submitted that claim 49 is also allowable over the cited references. Since claims 34-48, 65, 67, and 69 depend variously from claim 33, and claims 50-64 and 66 depend variously from claim 49, it is further submitted that those claims are also allowable over the cited references.

Claims 35 and 51

Claims 35 and 51 have been amended to more clearly describe the relationship between the auxiliary coding, the first data packet's training sequence, and the first data packet. Amended claim 35 is directed to the network device of claim 33, wherein the first auxiliary coding and the training sequence form the first and second portion, respectively, of the first data packet. This amendment is supported by Fig. 3. The Applicant submits that the cited references do not teach all the features of amended claim 35.

Claims 36 and 52

Claims 36 and 52 have been amended to conform with the above-described amendments to claims 33 and 49, respectively, from which claims 36 and 52 respectively depend. The term "training preamble" was replaced with "training sequence."

Claims 38 and 54

Claims 38 and 54 have been amended as a consequence of the amendments to claims 33 and 49, respectively, from which claims 38 and 54 respectively depend. The amendments relate to receiving a second data packet. Amended claim 38 is directed to the network device of claim 33, wherein the network device is adapted to generate, for transmission, data packets and auxiliary coding similar to those that the network device is adapted to receive and process. In

amended claim 38, references to "second" (i) auxiliary coding, (ii) data packet, (iii) training preamble, (iv) header, (v) payload, and (vi) identifier have been replaced with references to "first transmitted" (i) auxiliary coding, (ii) data packet, (iii) training sequence, (iv) header, (v) payload, and (vi) identifier, respectively. Also, a reference to a "data packet" was corrected to refer to a "training sequence." The Applicant submits that, for reasons similar to those presented above for claim 33, the cited references do not teach all the features of amended claim 38.

Therefore, the Applicant submits that this provides further grounds for the allowability of claim 38 over the cited references. For similar reasons, the Applicant submits that this also provides further grounds for the allowability of amended claim 54 over the cited references. Since claims 39-40 depend from claim 38, and claims 55-56 depend from claim 54, it is submitted that this also provides further grounds for the allowability of those claims.

Claims 39 and 55

Claims 39 and 55 have been amended to conform with the above-described amendments to claims 38 and 54, respectively, from which claims 39 and 55 respectively depend.

Claims 40 and 56

Claims 40 and 56 have been amended as a consequence of the above-described amendments to claims 39 and 55, respectively, from which claims 40 and 56 depend, respectively. The Applicant submits that the cited references do not teach all the features of amended claim 40. In particular, the cited references do not teach the feature of a transmitter comprising a first and a second RF front end, where the first transmitted auxiliary coding is transmitted using the first RF front end and the first transmitted data packet is transmitted using the second RF front end.

In rejecting previously pending claim 40, the Examiner asserted that the proposed combination of Lindoff, Lai, Monk, Trans, and Goslin would disclose all the requisite features of claim 40. Significantly, the Examiner did not assert that any of the cited references teach a network device with a first and a second RF front end. Goslin mentions a front end, but does not teach a transmitter having two RF front ends, where a first RF front end transmits an auxiliary coding, and the second RF front end transmits a corresponding data packet.

The Examiner did assert that "It should thus be obvious to transmit the auxiliary coding with the same/different RF front end as it is well known in the art that transmitters/receivers incorporate RF front ends to transmit data which incorporates training sequences and data

packets" and "transmitting of aux[iliary] coding through a specified RF front end is simply a systems parameter of the transmission system and its components." First, the bald implication that, by their very nature, transmitters/receivers have multiple RF front ends is unsupported. Second, denigrating a requisite feature as "simply a systems parameter" does not actually show where the prior art allegedly teaches that requisite feature. In other words, no support is provided for the assertion that the cited references teach a device having and using multiple RF front ends. Consequently, it cannot be said that the cited references teach this requisite feature of claim 40.

Therefore, the Applicant submits that the above reasons provide further grounds for the allowability of claim 40 over the cited references. For similar reasons, it is submitted that this also provides further grounds for the allowability of claim 56 over the cited references.

Claims 42 and 58

In rejecting claim 42, the Examiner admitted that the combination of Lindoff and Haartsen fails to teach a first auxiliary coding of five or fewer bits. However, the Examiner asserted that "it would have been obvious to use 5 or fewer symbols/bits to efficiently use bandwidth and resources of the channel..." and that "this is simply a network parameter." The Applicant notes, however, that claim features must be analyzed in view of the related correspondences asserted by the Examiner.

As noted above, the Examiner asserted that the training sequence of Lindoff corresponds to the claimed auxiliary coding. As a result, to properly anticipate or obviate claim 42, the cited references must teach a training sequence that is five or fewer bits long. The Examiner did not identify any reference that teaches a training sequence that is five or fewer bits. The Applicant submits that, while a five-bit identifier could be useful to uniquely identify 32 different stations, a five-bit training sequence is likely to be too short to be useful. For example, the specification describes an exemplary training sequence that is 64 symbols long (see, e.g., page 4, lines 9-14). As a result, since there is no indication that the cited references teach a training sequence of five or fewer bits, it cannot be said that the cited references teach an auxiliary coding that is five or fewer bits.

Therefore, the Applicant submits that the above reasons provide further grounds for the allowability of claim 42 over the cited references. For similar reasons, it is submitted that this also provides further grounds for the allowability of claim 58 over the cited references.

Claims 43 and 59

In rejecting claim 43, the Examiner asserted that the proposed combination of Lindoff, Lai, Monk, and Trans would disclose all the features of claim 43. The Applicant submits that the proposed combination would not disclose all the features of claim 43.

In rejecting previously pending claim 33, the Examiner asserted that the first identifier of claim 33 corresponds to the training sequences of the cited references. Significantly, the Examiner failed to even allege where, if anywhere, any of Lindoff, Lai, Monk, or Trans discloses a training sequence that uniquely identifies its transmitter. In rejecting claim 43, the Examiner asserted that the claimed first identifier corresponds to a network or transmitted ID. This assertion contradicts the Examiner's earlier assertion that the first identifier corresponds to a training sequence. A training sequence is not equivalent to a network ID or transmitted ID. In other words, the cited references do not disclose a first identifier that both (1) is a training sequence and (2) uniquely identifies the first transmitter within the communication network. Consequently, it cannot be said that the cited references teach all the features of claim 43.

Therefore, the Applicant submits that this provides further grounds for the allowability of claim 43 over the cited references. For similar reasons, it is submitted that this provides further grounds for the allowability of claim 59 over the cited references. Since claim 44 depends from claim 43, and claim 60 depends from claim 59, it is further submitted that this also provides further grounds for the allowability of those claims.

Claims 47 and 63

As noted above, the Examiner failed to anywhere even allege that the cited references, alone or in combination, disclose claim 47's feature that "the first auxiliary coding is received as a first set of pulses received substantially immediately before the first data packet." For this reason alone, the rejection of claim 47 is improper and should be withdrawn.

In rejecting claim 47, the Examiner asserted that the combination of Lindoff, Lai, Monk, and Haartsen would disclose all the features of claim 47, including that "the first identifier is encoded in a first set of pulses by varying timing intervals between pulses." The Applicant notes that the above-quoted section from the Office Action does not accurately represent the recited feature of claim 47. The Applicant submits that the proposed combination would not teach the feature that "the first identifier is encoded in the first set of pulses by varying timing intervals between adjacent pulses in the first set of pulses."

The Examiner cited paragraph 36 of Haartsen as allegedly specifically teaching the above-quoted feature. Paragraph 36 of Haartsen discusses modulation schemes and says nothing about varying timing intervals between adjacent pulses. In fact, Haartsen nowhere even uses either the term "timing" or the term "interval." Consequently, it cannot be said that the cited references teach this features of claim 47.

Therefore, the Applicant submits that this provides further grounds for the allowability of claim 47 over the cited references. For similar reasons, it is submitted that this also provides further grounds for the allowability of claim 63 over the cited references.

Claim 67

Claim 67 has been amended to conform with the above-described amendments to claim 33, from which claim 67 depends.

Claim 69

New claim 69 is directed to the network device of claim 33, wherein the first data packet's training sequence is substantially identical to the second data packet's training sequence and the first auxiliary coding is not substantially identical to the second auxiliary coding. New claim 69 is supported by, for example, the specification at page 3, lines 15-18; page 4, lines 9-17; page 10, lines 10-15; and page 11, lines 7-17.

The Applicant submits that the Examiner's various proposed combinations of cited references would not teach the above-referenced features of claim 69. As noted above, the Examiner asserted that the training sequence of Lindoff corresponds to the recited auxiliary coding. Assuming, *arguendo*, that the correspondence is proper, which the Applicant denies, the proposed combined system could have a pair of training sequences that are both substantially identical and not substantially identical. Since such a result would be nonsensical and absurd, the premise must be wrong. As a result, it cannot be said that the proposed combination of references would teach the above-referenced features of claim 69.

Therefore, the Applicant submits that this provides further grounds for the allowability of claim 69 over the cited references.

Conclusion

In view of the above amendments and remarks, the Applicant believes that the now-pending claims are in condition for allowance. Therefore, the Applicant believes that the entire

application is now in condition for allowance, and early and favorable action is respectfully solicited.

<u>Fees</u>

During the pendency of this application, the Commissioner for Patents is hereby authorized to charge payment of any filing fees for presentation of extra claims under 37 CFR 1.16 and any patent application processing fees under 37 CFR 1.17 or credit any overpayment to **Mendelsohn, Drucker, & Associates, P.C. Deposit Account No. 50-0782.**

The Commissioner for Patents is hereby authorized to treat any concurrent or future reply, requiring a petition for extension of time under 37 CFR § 1.136 for its timely submission, as incorporating a petition for extension of time for the appropriate length of time if not submitted with the reply.

Respectfully submitted,

Date: _____23-Apr-2010_____   /Edward J. Meisarosh/_____

Customer No. 46900   Edward J. Meisarosh
Mendelsohn, Drucker, & Associates, P.C. Registration No. 57,463
1500 John F. Kennedy Blvd., Suite 405   Attorney for Applicant
Philadelphia, Pennsylvania 19102   (215) 599-3639 (phone)
                                  (215) 557-8477 (fax)